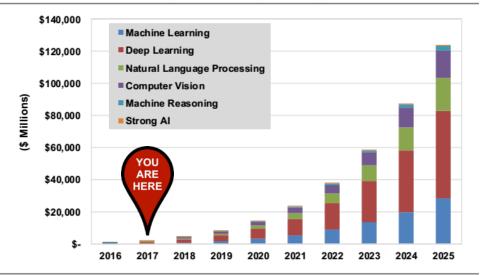


# Intelalnside Safer Children Outside

### Dawn of Artificial Intelligence

Chart 3.5 Annual Artificial Intelligence Revenue by Technology, World Markets: 2016-2025



(Source: Tractica)

"In the past a lot of S&P 500 CEOs wished they had started thinking sooner than they did about their Internet strategy. I think five years from now there will be a number of S&P 500 CEOs that will wish they'd started thinking earlier about their AI strategy."

- Andrew Ng Al luminary

uote source: http://fortune.com/ai-artificial-intelligence-deep-machine-learning/



# Artificial intelligence

### ARTIFICIAL INTELLIGENCE

A program that can sense, reason, act, and adapt

### **MACHINE LEARNING**

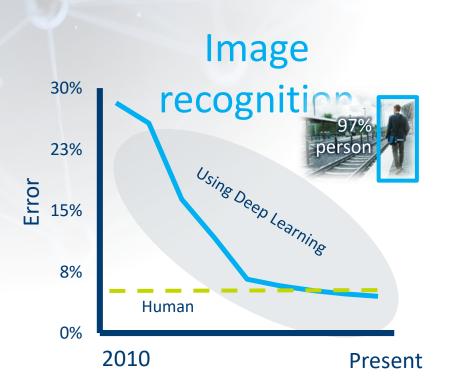
Algorithms whose performance improve as they are exposed to more data over time

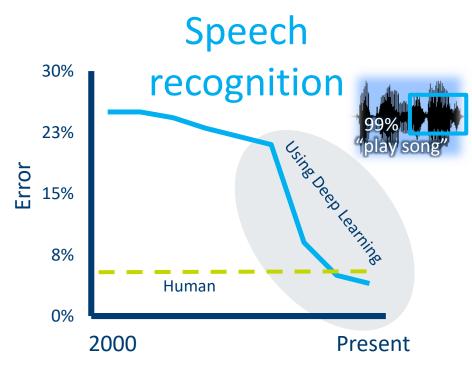
### DEEP Learning

Subset of machine learning in which multilayered neural networks learn from vast amounts of data



# Deep learning breakthroughs













Most of the sex traffic victims are only 4 years





79,000
MINORS AND YOUTH ARE VICTIMS OF SEX TRAFFICKING
IN TEXAS \* \*

APPROXIMATELY

234,000 WORKERS ARE VICTIMS OF LABOR TRAFFICKING

313,000 HUMAN TRAFFICKING IN TEXAS \* \* \* \* \*

TRAFFICKERS \$600 MILLION
APPROXIMATELY
EROM VICTIMS OF LABOR TRAFFICKING

MINOR AND YOUTH
SEX TRAFFICKING COSTS
THE STATE OF
TEXAS

APPROXIMATELY

\$6.6 BILLION

### Federal Government Stakeholders









# NCMEC builds a coordinated national



# National Center for Missing & Exploited Children Million 5DIVISI

Annual Budget

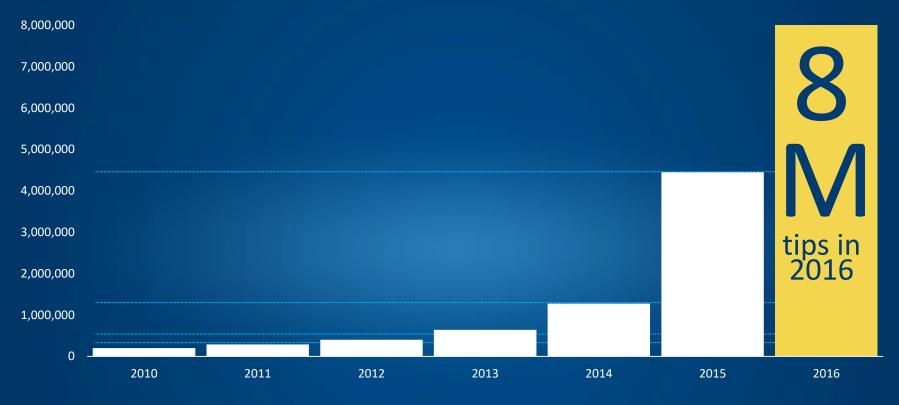
Employees







### NCMEC's Flood of Data



7.4M CyberTipline reports

70K Calls to Call Center

19M child pornography images/videos reviewed

8K Professionals trained

20K newly reported missing children

3K non-compliant sex offenders located

8K families provided emotional support

# What is private sector doing to help?

Reduce CyberTip data analytics from 30 days to one day with AI

Provide IT consulting with an enterprise data management strategy

Provide guidance on IT Transformation for their data center to address exponential data growth

Partner with NCMEC's tool providers to accelerate image matching capabilities

### Thorn

\$2 Million 5 Focus areas

Innovation Lab Annual Budget

Employees &

Deterrence Tech company engagement

Innovation Hackathons Lab

Founded by Ashton Kutcher and
em Moore
Headquartered in

Los Ange
California

Mission: WE DRIVE TECHNOLOGY INNOVATION TO ELIMINATE CHILD SEXUAL ABUSE MATERIAL FROM THE INTERNET.

# **THORN** $\mathsf{IN}$ **FOUR**

**SPOTLIGHT** 

6,325

Sex trafficking victims identified

2,186

60%

sølis

Children rescued

50%+

Time reduction

# YEARS...

Reached over 2M with deterrence ads

60K

#### **CHILD FINDER SERVICE**



sexual abuse victims

#### **INDUSTRY COLLABORATION**

Tool for private industry to identify and remove bad content







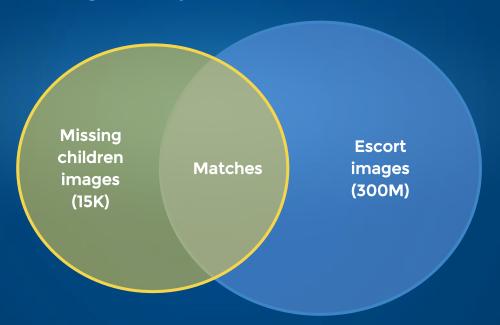






## THORN's CHILD FINDER SERVICE

Leverage facial recognition technology and image intelligence to find missing and exploited children faster.



# THORN's CHILD FINDER SERVICE

Prototype

At Scale Implementation

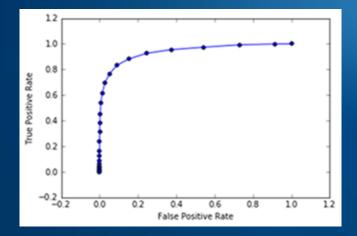
At Scale Analysis

User Interface

Accuracy Test Results:

Solid classifier for face recognition

0.92 Area under Curve on tests dataset



#### Pilot Run:

All NCMEC cases against 25K

Backpage images → 107 matches. Highest confidence 0.75





With Al Assist









Top 3 prospects

# Ai is Happening Everywhere...



